

CENTRAL INTELLIGENCE AGENCY

REPORT NO.

INFORMATION REPORT

CONFIDENTIAL

COUNTRY Germany (Russian Zone)

DATE DISTR. 26 April 1948

SUBJECT Designing of Shipyard for Construction of Torpedo Cruiser at the Technisch-Wissenschaftliches Büro in Warnemünde
Germany, Berlin

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1. The Russian director of the Technisch-Wissenschaftliches Bureau in Warnemünde is Lt. Colonel Grigoriyev. The manager of the machinery and boiler departments is Engineer Heise, formerly with Schichau in Elbing.
2. The Bureau is concerned with the planning of shipyards, laid out for one fixed type. Only one single type, of the following specifications, is to be built in them:

Torpedo-cruiser of 3000 to 3500 tons of the same type as that used in the French and Italian navies. The cruiser is to carry forward and after turrets with 15 cm guns, as well as torpedo tubes and the ordinary other armaments. The ship is to have twin-screw propulsion. The turbines are steam-fed in power-station arrangement, i.e., one turbine compartment to each boiler compartment. The ship will carry 2 boiler and 2 turbine compartments. Each boiler compartment is to have 2 Wagner high-pressure steam boilers with the following installed capacities:

Steam pressure: 70 atm
Steam temperature: 400° to 425° C
Steam rate: 100 t/h

Each boiler has 4 Saabte centrifugal burners:

Fuel consumption per boiler: 8 t/h
Type of fuel oil used: 9500 to 10,000 BTU/kg (heat unit per kg.)

Compartment pressure (blastproof) is produced by two blowers acting as turbo-compressors with a speed of 350 to 2200 rpm. producing a pressure of 10 to 370 mm of Hg in the boiler compartment. Firebox pressure for firing amounts to a maximum of 180 to 200 mm Hg. Fuel temperature varies from 50° to 70° C. The capacity of each turbo-compressor is 520 hp, i.e., each compartment is supplied with about 11 t/h. of steam.

3. All machines operate at 12 atm (atm) evaporation. The boilers have fluegas-feedwater preheater and surface preheater. Only one auxiliary feedpump is installed in the boiler compartments, while the main feed pump is set up in the turbine compartment. The Sulzer-Winterthur system is planned for the feed pumps operating as rotary pumps.

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4. The ship length will be approximately 128 m (420 ft.). The anticipated speed is 40 knots, with 50,000 HP on each shaft. (Handwritten note: 370 rpm)
5. The capacity of the projected shipyard will be 25 ships a year. Three or four other yards are planned, one on the Black Sea near Kerch, one on the Baltic, one on the Arctic coast and one in the Far East.
6. This Bureau is associated with Gorn-Khopenick, which does similar boiler designing, but systematic efforts are being made to give the Wernsunde Bureau freedom to work independently.

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